

the eggs I got (about twenty-five in number) were either fresh or nearly so. There are hardly any other birds in Round Island, and these two are probably the only species that breed there, with the exception of the small Turtle-Dove (*Geopelia striata*, Gray), of which I saw a pair—the only land-birds, indeed, I observed. Between Round Island and Mauritius I saw a few Frigate-birds (*Tachypetes* —?), another species of Shearwater (*Procellaria assimilis* of Gould, I think), and a few Noddy Terns (*Anous stolidus*, Leach). These latter are said to breed on Serpent Island, about two miles to the northward of Round Island, whence it looks as if covered with a slight snow-shower—an appearance said to be caused by the dung of the birds. It has only been once or twice visited, and we had not time to go there; besides, the landing there is always exceedingly difficult. Round Island for that matter is bad enough, and is only accessible two months in the year. On it there are still the remains of the cave and old stone wall which was built as a shelter by the late Colonel Lloyd when he was there some fifteen or sixteen years ago, and had to stay more than a week on account of a hurricane. The present Acting Surveyor-General, to whom the island belongs, and who accompanied me on my visit, was then one of the party. They were thought by all here to have been lost or starved, and a steamer was sent to their relief; but from the number of empty bottles that are left, they could not have done so badly in the drinking way. We were only away one night, that of November 3, and left again the following day at noon; so we had not much time, and I suppose I shall not be able to get there again for another year.

XIX.—On the American Barbets (Capitonidæ).

By PHILIP LUTLEY SCLATER.

(Plate VI.)

THE true Barbets of the tropics of both hemispheres (*Capitonidæ*) have been united by some systematists with the Woodpeckers (*Picidæ*), whilst others have mixed them up with the Fissirostral *Bucconidæ* or Puff-birds—a group which cannot certainly be placed far from the Kingfishers (*Alcedinidæ*). Though I agree with the

former authorities in considering the Barbets as true Scansorials, I cannot join with Mr. G. R. Gray in arranging them as a subfamily of the Woodpeckers (*Picidæ*). They appear to me to have every claim to occupy a distinct station, and to be ranged as an independent family near the Toucans (*Ramphastidæ*), to which latter group one of the genera (*Tetragonops*) shows very considerable *rapprochement*.

While the Woodpeckers are spread throughout the New World and over the whole of the Old World, except the Australian region, the Barbets are strictly confined to the tropics of both hemispheres. In Asia, Africa, and America, however, they are represented by different genera; and when their full history and peculiarities are better known, it is not improbable that the Barbets of the eastern and western hemispheres may be separable into two subfamilies. The known genera of the *Capitonidæ*, geographically arranged, are as follows:—

America.	Africa.	Asia.
<i>Capito</i> .	<i>Pogonorhynchus</i> *.	<i>Megalæma</i> .
<i>Tetragonops</i> .	<i>Gymnobucco</i> .	<i>Psilopogon</i> .
	<i>Barbatula</i> .	<i>Megalorhynchus</i> .
	<i>Trachyphonus</i> .	

Of these three regions the Neotropical is the poorest in number of species, though, in brilliancy of colouring and in singularity of form (looking to *Tetragonops*), the South-American Barbets are perhaps the most remarkable of the family.

The Barbets occupy but a limited area in South America compared with many other of its peculiar families. Not one of them has yet been found to the north of the Isthmus of Panama, or south of the basin of the Amazon, and the species are chiefly confined to the countries traversed by the upper branches of this river, and to the mountain-valleys of New Granada, Ecuador, and Peru. We have few details recorded concerning their habits, but they are said to be seen generally in the fruit-trees, feeding on the fruit, and hopping from branch to branch like the Toucans†.

* This term, proposed by Van der Hoeven in 1833 (Handb. d. Zool. ii. p. 446), has precedence over *Læmodon*, generally adopted for this genus.

† Interesting particulars concerning the habits of the Asiatic *Capitonidæ*

Genus I. TETRAGONOPS.

1866 *Tetragonops*, Jard. Edinb. N. Phil. Journ. n. s. ii. p. 404 (1859).

357 Rostro forti, ad basin quadrato, mandibulæ apice bifurcatâ et maxillâ, supra hanc leniter incurvatâ, obtectâ.

1864 TETRAGONOPS RAMPHASTINUS. (Plate VI.)

371 *Tetragonops ramphastinus*, Jard. Edinb. N. Phil. Journ. 1855, n. s. ii. p. 404, et iii. p. 92 (cum fig.).

Pileo et nuchâ mediâ cum cervice posticâ atris; nuchâ utrinque laterali candidâ; dorso flavo-olivascenti-brunneo; uropygio olivaceo-flavo; alis caudâque schistaceo-nigris, remigibus extus olivascentibus: gutture late schistaceo, ventre summo olivaceo-flavo, hoc medio et vittâ pectorali coccineis; ventre imo crissoque cum lateribus schistaceo-virentibus: rostro flavo, dimidio apicali schistaceo: long. tota 8·3, alæ 4·0, caudæ 3·25.

Hab. in rep. Æquator.

Mus. Gul. Jardine, Bar.

Sir William Jardine received a specimen of this very curious and beautiful bird in September 1859 from Professor Jameson of Quito, and described it in the 'Edinburgh New Philosophical Journal' for that year, as noticed above. In the following volume some further details were given respecting it, and an uncoloured drawing of it, from the pencil of Mrs. H. E. Strickland. Sir William Jardine having kindly placed the stone with the drawing on it at my disposal, I thought that a coloured figure of this strange bird would be acceptable to the readers of 'The Ibis,' and I have to thank Mrs. Strickland for supplying me with a coloured copy of the plate for a pattern.

Sir William Jardine has since received a second example of this bird from Professor Jameson. I particularly called the attention of Mr. Fraser, when he was in Ecuador, to this bird; but though he visited the exact locality where Professor Jameson's specimens were obtained (Nanegal, on the Pacific slope of the western range of the Andes, as he was informed by Professor Jameson, and not Cayambe), he was unable to procure specimens; so we must suppose the bird to be rare.

will be found collected in Horsfield and Moore's 'Catalogue of the Birds in the East India Company's Museum' (ii. p. 635 *et seq.*).



TETRAGONOPS RAMPHASTINUS. Jard

The most noticeable points about the *Tetragonops* are the singular conformation of the bill (the lower mandible being distinctly bifurcated at its extremity, and the point of the upper fitting into the groove thus made), and the abnormal distribution of the colours, which strongly reminds one of some of the Toucans of the genus *Andigena*.

Genus II. CAPITO.

Capito, Vieill. Analyse, p. 27 (1816).

Micropogon, Temm. Tabl. Méth. d. Pl. Col. p. 55 (1838).

Nyctactes, Gloger, Obs. s. noms d'Ois. (1827).

Rostro compresso, ad basin dilatato, culmine inter nares elevato ; mandibulâ subrectâ, apice acuto ; maxillâ incurvâ, apice ultra mandibulam breviter protenso.

Sectio a. *Capito*.

Majores : robustiores.

1. CAPITO ERYTHROCEPHALUS.

Barbu de Cayenne, Buff. Pl. Enl. 206. fig. 1, unde *Bucco erythrocephalus*, Bodd., et *B. cayennensis*, Gm. S. N. i. p. 405 : *Micropogon cayennensis*, Temm. : *Capito erythrocephalus*, Gray, Gen. ii. p. 430 (adult.).

Barbu de S. Domingue, Buff. Pl. Enl. 206. fig. 2, unde *Bucco cayennensis*, var., Gm. S. N. i. p. 405 : *Micropogon nævius*, Temm. : *Capito nævius*, Gray, Gen. ii. p. 430 (juv.).

Capito cayennensis, Schomb. Guian. iii. p. 720 : *Le Barbu de la Guyane*, Le Vail. Ois. de Par. ii. pls. 23, 24, 25.

Niger, sulphureo variegatus : alis et caudâ fuscis, extus virescentibus : pileo flavicante, fronte lato et gutture rubro-coccineis : abdomine pallide sulphureo : lateribus nigro obsolete maculatis : pectore et lateribus totis in juvene nigro distincte guttatis : long. tota 6·5, alæ 3·1, caudæ 2·0.

Hab. Guiana.

Mus. Brit., P.L.S.

There is no doubt now, we believe, that the *Capito nævius* is merely the young of *Capito erythrocephalus*, and that the spots gradually disappear, in the manner pointed out by MM. Deville and Des Murs in their article upon the following species, leaving the abdomen pure and unspotted in the adult bird.

2. CAPITO AMAZONICUS.

Micropogon amazonicus, Deville et Des Murs, Rev. et Mag. de Zool. 1849, p. 174; Des Murs, Zool. Voy. Casteln. Ois. p. 28. pl. 3. fig. 2.

Similis *Capitoni peruviano*, sed gutture rubro: long. tota 5·3, alæ 2·3, caudæ 2·1.

Hab. Ega and Santa Maria, Upper Amazon (*Deville*).

Mus. Brit.

MM. Deville and Des Murs describe this bird as forming an intermediate variety between *C. erythrocephalus* and *C. peruvianus*. A skin in the British Museum, which seems to be referable to it, was obtained by Mr. Wallace at Ega, and is marked: "Iris orange; tongue cartilaginous, flat, not fringed: in stomach seeds." It resembles *Capito peruvianus* except in its red throat, in which respect it is clearly intermediate between *C. erythrocephalus* and its Amazonian representative.

3. CAPITO PERUVIANUS.

Le Barbu orangé de Pérou, Le Vail. Ois. de Par. ii. pl. 27. p. 63.

Bucco peruvianus, Cuv. Règne An. (1829) i. p. 458.

Capito peruvianus, Gray's Gen. ii. p. 430; Deville et Des Murs, Rev. et Mag. de Zool. 1849, p. 161.

Capito punctatus, Less. Tr. d'Orn. p. 65; Gray's Gen. ii. p. 430; Des Murs, Icon. Orn. pl. 20.

Capito aurifrons, Vig. Proc. Zool. Soc. 1832, p. 3; Gray's Gen. ii. p. 430.

Eubucco aurifrons, Bp. Consp. p. 142.

Micropogon flavicollis, Bp. Proc. Zool. Soc. 1837, p. 120.

Capito flavicollis, Gray's Gen. ii. p. 430.

Micropogon aureus, Temm. Pl. Col. (sub tab. 490).

Le Barbu de la Guyane, ii. var., Le Vail. Ois. de Par. pl. 26. p. 62.

Niger, sulphureo variegatus, pileo toto virescenti-sulphureo: gutture aurantio: abdomine flavo: pectore et lateribus in juvene nigro squamatis et guttatis: long. tota 7·0, alæ 3·5, caudæ 2·2.

Hab. Interior of New Granada; Rio Napo; Upper branches of the Amazon; Rio Javarri (*Bates*); Chamicurros (*Hawxwell*).
Mus. Brit., P.L.S.

This species is easily distinguished from its representative in

Cayenne by the want of the bright-red front, and the throat being orange instead of red. The younger birds are more or less spotted below, as in *Capito erythrocephalus*, and have been described as different, under the name of *Capito punctatus*. The irides, as noted by Mr. Hawxwell, are red.

4. CAPITO AUROVIRENS.

Le Barbu oranvert, Le Vail. Prom. Suppl. pl. E.

Bucco aurovirens, Cuv. Règn. An. (1829) i. p. 458.

Micropogon aurovirens, Bp. Proc. Zool. Soc. 1837, p. 120 ; Bp. Consp. p. 142.

Capito aurovirens, Gray's Gen. ii. p. 430.

♂ virescenti-fuscus : pectore late aureo : mento albescente : pileo coccineo : long. tota 7·5, alæ 3·4, caudæ 2·5.

♀ pileo concolore : mento albescente.

Hab. Peruvian Amazon, Sarayacu on the Ucayali (*Cast. et Deville, Hawxwell*) ; Rio Napo.

Mus. Brit.

Examples of this beautiful species obtained by Mr. Hawxwell on the Ucayali, now in the British Museum, are marked "Irides red." Specimens have likewise been received by Sir William Jardine from the Rio Napo, through Professor Jameson.

Sectio b. *Eubucco*.

Minores : coloribus lætioribus.

5. CAPITO PICTUS.

Barbu de Maynas, Buff. Pl. Enl. 330, unde *Bucco pictus*, Bodd. Tabl. d. Pl. Enl.

Capito maynanensis, Gray's Gen. ii. p. 430, ex Brisson.

Bucco elegans, Gm. S. N. i. p. 406.

Le Barbu élégant, Le Vail. Ois. de Par. ii. pl. 34. p. 76.

Eubucco pictus, Sclat. P. Z. S. 1857, p. 268.

Viridis : pileo et gutture medio coccineis : mystacibus latis et torque angusto cervicali undique glauco-cæruleis : pectore flavo : ventre flavo viridique flammulato, maculâ magnâ mediali sanguineâ : rostro flavo, basi plumbeâ : pedibus nigris : long. totâ 6·0, alæ 2·6, caudæ 2·0.

Hab. Bolivia (?).

Mus. Derbiano.

The only example I have ever seen of this Barbet is in the

Derby Museum at Liverpool. It was purchased from Mr. Cumming by the late Lord Derby in 1846, and is labelled "Bolivia;" but the skin has every appearance of being of the Bogotan make. This species may be easily distinguished from the following, with which it has been sometimes confounded, by the broad blue moustaches which descend on each side of the throat, and are united below the red chin by a narrow blue throat-band. In *Capito tschudii*, the sides of the face between the head and the throat are yellow.

6. CAPITO TSCHUDII.

Capito erythrocephalus, Tsch. F. P. p. 260 (nec Bodd.).

Eubucco erythrocephalus, Sclat. P. Z. S. 1857, p. 268.

Viridis: nuchâ griseo-cæruleâ: pileo et oculorum ambitu coccineis: subtus flavus, gutture et pectore medio coccineis: margine subgutturali cæruleo, deinde aurantiaco: lateribus et crisso viridi flammulatis: crass. spec. præc.

Hab. Eastern Peru (*Tschudi*).

Mus. Bremensi et Novo-Castellano.

My characters are taken from a specimen in the Bremen collection received direct from Tschudi.

7. CAPITO BOURCIERI.

1870
111
112 *Micropogon bourcierii*, Lafr. R. Z. 1845, p. 179, et Rev. et Mag. de Zool. 1849, p. 116. pl. 3.

Capito bourcierii, Gray's Gen. ii. p. 430.

Eubucco bourcierii, Bp. Consp. p. 142; Sclater, P. Z. S. 1854, p. 115, 1857, p. 267, et 1860, pp. 95, 297.

Viridis: vittâ nuchali angustâ cærulescenti-griseâ: capite toto et gutture ad medium pectus coccineis: loris et mento nigris: ventre medio sulphurascente, lateribus flavo viridique flammulatis: rostro plumbeo, apice flavâ: pedibus nigris: long. tota 5·5, alæ 3·2, caudæ 1·9.

Hab. Interior of New Granada; Rio Napo; Esmeraldas and Nanegal (*Fraser*).

Mus. Brit., P.L.S.

This bird was originally received in collections from Bogota. Examples of it were likewise contained in Mr. Gould's collection from the Ecuadorian province of Quixos on the Rio Napo, of which I gave a list in Proc. Zool. Soc. for 1854 (p. 109). Mr. Fraser has more recently obtained specimens of it, of slightly

larger dimensions, though apparently not otherwise different, at Esmeraldas and Nanegal, on the opposite side of the Andes.

8. CAPITO RICHARDSONI.

Capito richardsoni, Gray's Gen. ii. p. 430. pl. 106.

Eubucco richardsoni, Bp. Consp. p. 142; Slater, P.Z.S. 1857, p. 267.

Capito sulphureus, Eyt. Cont. Orn. 1849, p. 130.

Viridis: vittâ cervicali posticâ cinerascanti-cæruleâ: capite toto cum maculâ mentali saturate sanguineo-coccineis: gutture pallide sulphureo: pectore sanguineo perfuso: ventre flavo viridique flammulato: long. tota 5·5, alæ 2·5, caudæ 1·75.

Hab. Interior of New Granada.

Mus. Brit., P.L.S.

The dark-grey posterior neck-band is an easily distinguishing characteristic of this bird, as compared with the next species.

9. CAPITO AURANTICOLLIS.

Eubucco aurantiicollis, Slater, P. Z. S. 1857, p. 267.

Viridis: vittâ cervicali posticâ clare flavicanti-viridi: capite toto et maculâ mentali saturate sanguineo-coccineis: gutture aurantiaco: pectore coccineo: ventre flavo viridique flammulato: long. tota 5·5, alæ 2·7, caudæ 1·8.

Hab. Peruvian Amazon: Rio Javarri (*Bates*): Ucayali (*Hawxwell*).

Mus. Brit., P.L.S.

This species closely resembles the preceding, but may be distinguished by its light greenish-yellow (not grey) posterior neck-band, orange (not yellow) throat, and deeper scarlet breast. Mr. Hawxwell's examples are marked "*Iris red*."

10. CAPITO HARTLAUBI.

Micropogon hartlaubi, Lafr. R. Z. 1845, p. 180, et Rev. et Mag. de Zool. 1849, p. 176. pl. 6.

Capito hartlaubi, Gray's Gen. ii. p. 430.

Capito capistratus, Eyt. Cont. Orn. 1849, p. 131.

Megalaima capistratus, Eyt. Cont. Orn. 1850, p. 29. pl. 45.

Eubucco hartlaubi, Slater, P. Z. S. 1854, p. 115, et 1857, p. 268.

Viridis: fronte, loris et mento nigris: frontis margine postico, superciliis et capitis lateribus grisescenti-cæruleis: pileo au-

rescente : vittâ latâ cervicali anticâ aurantiâ : pectore pallide sulphureo : ventre flavo et viridi flammulato : long. tota 5·0, alæ 2·7, caudæ 1·8.

Hab. Interior of New Granada and Rio Napo.

Mus. Brit., P.L.S.

11. CAPITO MELANOTIS.

1870 "Eubucco hartlaubi, ♀ aut juv.," Slater, P.Z.S. 1857, p. 267.

112 *Capito melanotis*, Hartlaub, in *Mus. Bremensi*.

+ 113 *Viridis* : loris et regione auriculari nigris : superciliis post oculum aurescentibus : subtus viridis, gutture grisescente, mento albo : vittâ cervicali anticâ sulphureâ : ventre flavo et viridi flammulato : crass. spec. præc.

Hab. New Granada, Rio Napo, and Peruvian Amazon ; Ucayali (*Hawxwell*) ; Rio Javarri (*Bates*).

Mus. Brit., Bremensi, P.L.S.

I am still not certain as to whether this bird is really distinct from *C. hartlaubi*. It differs from that species in the green cap, which has, however, an aurescent tinge, in the black (not blue) sides of the head, which are bordered behind by a golden post-superciliary mark, and in the yellow (not orange) throat-band. I have not yet met with intermediate forms, and am rather disposed, at present, to agree with Dr. Hartlaub in making it specifically different. I should remark, however, that both Mr. Hawxwell's specimens in the British Museum are marked "female."

12. CAPITO GLAUCOGULARIS.

Capito glaucogularis, Tsch. Av. Consp. in Wieg. Archiv, 1844, p. 301, et Faun. Per. p. 259. pl. 24. fig. 2.

Eubucco glaucogularis, Slater, P. Z. S. 1857, p. 268.

Viridis : facie et gutture cæruleis : loris nigris : vittâ anticâ cervicali ruberrimâ : abdomine viridi : ventre flavo et viridi flammulato : crass. spec. præc.

Hab. Eastern Peru (*Tsch.*).

Mus. Bremensi.

Cont. 1862. p. 1

XX.—On the Possibility of taking an Ornithological Census.

By ALFRED NEWTON, M.A., F.L.S.

To attempt the taking of an Ornithological Census of these islands was a favourite idea of Mr. John Wolley's ; so much so, indeed, that I believe he used to regard its accomplishment as the chief